

United States Department of Energy
Nonproliferation and National Security Institute
Safeguards and Security Central Training Academy



Chemical Biological Warfare
Protective Equipment
(PFT-340D)

The United States
Department of Energy
Nonproliferation and National Security Institute

***Chemical Biological Warfare-Protective Equipment
Interactive Television Broadcast***

January 18, 2001

Broadcast Description

This broadcast introduces the chemical/biological warfare (CBW)-protective equipment that has been purchased for DOE field elements. The broadcast will cover the characteristics, use, and maintenance of the protective garments and mask. Factory representatives are on hand to answer questions. Included in the broadcast is a presentation on GID-3 chemical detector being procured by DOE.

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Gentex Corporation Representative: Tom Pease, (570) 282-8511

Safety Systems Corporation Representative: Kurt Wilhelm, (630) 653-1103

Segment 1: POLICIES, ORDERS AND MANUALS

- A. *Presidential Decision Directive-39, U.S. COUNTERTERRORISM POLICY, of 6-21-95.* Establishes policy, requirements, and responsibilities to deter, defeat, and respond to terrorist attacks on U.S. territory and resources, both people and facilities.
- B. *Design Basis Threat for Department of Energy Programs and Facilities (U), of 4-12-99.* Identifies and characterizes the potential generic adversary threats to DOE programs and facilities.
- C. *DOE O 473.2 PROTECTIVE FORCE PROGRAM, of 6-30-00.* Establishes policy, requirements, responsibilities, and authorities, for the management and operation of the Department of Energy (DOE) Protective Force (PF) Program.
- D. *DOE M 473.2-2, PROTECTIVE FORCE PROGRAM MANUAL, of 6-30-00.* Provides detailed requirements to supplement DOE O 473.2.

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- E. *DOE N 473.3, Standardization of Chemical Protective Equipment for PFs and Special Agents, of 3-29-00.* Establishes requirements for the standardization and procurement of chemical protective equipment for use by DOE PFs and Special Agents.

Segment 2: AVON FM 12 PROTECTIVE MASK

- A. Features of the Mask (list some of the features)
- B. Components of the Mask (list seven components)
- C. Changing Filters (list procedures)
- D. Inspection Criteria (list individual inspection criteria)
- E. Care and Cleaning (list care and cleaning instructions)
- F. Fitting the Mask (list procedure)
- G. Mask Accessories (list at least three accessories)
- H. Stowing the Mask (list procedure)
- I. Donning the Mask (and butyl hood)
 - 1. Stop breathing close eyes
 - 2. Remove headgear/glasses/contact lenses
 - 3. Open carrier grasp mask PSM
 - 4. Insert chin in chin cup
 - 5. Pull head-harness over head
 - 6. Tighten bottom straps
 - 7. Run hand over harness
 - 8. Seal outlet valve with hand
 - 9. Exhale
 - 10. Cover inlet port with hand
 - 11. Breathe in
 - 12. Resume Breathing

Don Butyl Hood and Secure Underarm Straps after Donning Mask

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Segment 3: 3M POWERED AIR PURIFYING RESPIRATOR (PAPR)

- A. Features (list some of the features)
- B. Specifications (list weight and battery life)
- C. Care and Cleaning (list instructions)
- D. Assembly (list steps)
- E. Performance Check (list procedure)
- F. Donning the Mask with PAPR
 - 1. Stop breathing close eyes
 - 2. Remove headgear/glasses/contact lenses
 - 3. Don protective clothing
 - 4. Remove mask and PAPR from carrier
 - 5. Turn PAPR unit on, verify positive air-flow
 - 6. Turn PAPR unit off
 - 7. Don protective mask
 - 8. Negative pressure check
 - 9. Hold breath after exhaling
 - 10. Pinch breathing tube
 - 11. Breathe in
 - 12. Resume Breathing

*Don Butyl Hood and Secure Underarm Straps after Donning Mask and PAPR
Don Garment Jacket Integral Hood after Donning Mask and PAPR*

Segment 4: 3M FILTERS - CANISTERS

- A. FR-57
 - 1. Specifications (list NIOSH approvals)
 - 2. Protection (list protection standard)

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B. FR 57

1. Specifications (list specifications)
2. Protection (list protection standards)

Segment 5: CBW PROTECTIVE CLOTHING

A. Gentex "DOE Protective Overgarment"

1. Jacket Design (list design features)
2. Pants Design (list design features)
3. Performance Criteria (list exposure time period)
4. Service/Shelf Life
Service life = _____ days
Shelf life = _____ years
5. Inspection and Maintenance (list inspection criteria)

B. Gentex Vapor Glove

1. Protection (list level of protection)
2. Size (list sizes)
3. Inspection (list inspection criteria)

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C. Butyl Hood

1. Construction (list types of materials)
2. Protection (list level of protection)
3. Inspection (list inspection criteria)

D. ACTON Mk IV Overboots

1. Construction (list types of materials)
2. Protection (list level of protection)
3. Inspection (list inspection criteria)

Segment 6: DONNING CBW EQUIPMENT

A. Security Condition Protective Postures (SCPP)

1. SCPP Level 5 – General threat of possible terrorist activity exists, but warrants only routine security measures.

Equipment worn =

Equipment available =

2. SCPP Level 4 – This condition applies to a possible threat of terrorist activity and generally enhanced security awareness.

Equipment worn =

Equipment available =

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3. SCPP Level 3 – Increased and more predictable threat of terrorist activity exists and may increase access controls.

Equipment worn =

Equipment available =

4. SCPP Level 2 – Terrorist incident occurs or intelligence information is received indicating that some form of terrorist activity is imminent.

Equipment worn =

Equipment available =

5. SCPP Level 1 – Most serious condition is declared in the immediate area where a terrorist attack has occurred which may affect the site or when an attack is initiated on the site.

Equipment worn =

Equipment available =

B. Time Limits for Donning Protective Clothing/Respirator

1. Protective Mask with Butyl Hood
2. Protective Clothing and Protective Mask with PAPR

Segment 7: Q & A PERIOD

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Segment 8: M88 (GID-3) CHEMICAL AGENT DETECTOR

A. DOE Procurement and Deployment Procedure

B. GID-3 Chemical Detector Training Materials

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SECURITY CONDITIONS PROTECTIVE POSTURES (SCPP)



SCPP Level 5	SCPP Level 4	SCPP Level 3	SCPP Level 2 ³	SCPP Level 1 ⁴
Worn	Worn	Worn	Worn	Worn
<ul style="list-style-type: none"> • Mask and Carrier² • Field or Tactical Equipment 	<ul style="list-style-type: none"> • Mask and Carrier² • Field or Tactical Gear 	<ul style="list-style-type: none"> • Overgarment • Field or Tactical Gear • Mask/Carrier² 	<ul style="list-style-type: none"> • Overgarment • Mask with hood • Field or tactical gear • Footwear covers 	<ul style="list-style-type: none"> • Overgarment • Mask & PAPR with hood • Field or tactical gear • Footwear covers • Gloves
Available	Carried ¹	Carried ¹	Carried	Carried
PPE issued, prepared and Available within 5 minutes	Footwear covers, mask hood, gloves and overgarment	Footwear covers, mask hood, and gloves	Gloves	
Primary Use	Primary Use	Primary Use	Primary Use	Primary Use
<p>CBW Threat</p> <p>General threat of possible terrorist activity exists, but warrants only Routine Security Measures.</p>	<p>CBW Threat</p> <p>This condition applies to a possible threat of terrorist activity and generally enhanced security awareness.</p>	<p>CBW Threat</p> <p>Increased and more predictable threat of terrorist activity exists and may increase access controls.</p>	<p>CBW Threat</p> <p>Terrorist incident occurs or intelligence information is received indicating that some form of terrorist activity is imminent.</p>	<p>CBW Threat</p> <p>Most serious condition is declared in the immediate area where a terrorist attack has occurred which may affect the site or when an attack is initiated on the site.</p>

Notes:

1. In patrol vehicle or with PF at their post.

2. Worn or readily available.

3. Roving and fixed posts (mask w/filter or PAPR).

4. SRT